and other proceedings conducted pursuant to FTA § 252. Until it addressed the matter of appropriate inter-carrier compensation for ISP-bound traffic further in a rulemaking proceeding, the FCC stated that interconnecting parties continued to be bound by their existing agreements, as interpreted by state commissions, with respect to the issue of reciprocal compensation in the context of ISP-bound traffic.

Finally, the FCC expressed its desire that carriers, in the first instance, establish inter-carrier compensation for ISP-bound traffic based on interconnection agreement negotiations. In view of the need to further develop the record for the purpose of adopting a rule regarding inter-carrier compensation for ISP-bound traffic, the FCC solicited comments on two alternative proposals to govern carriers' negotiations on this issue.[17]

C. RELEVANT COURT DECISIONS

Judicial Appeal of Docket No. 18082: Southwestern Bell Telephone Company v. Public Utility Commission of Texas (U.S. District Court; Western District, Texas; Midland/Odessa Division)

SWBT appealed the Commission's order in Docket No. 18082 to federal district court, seeking declaratory and injunctive relief.[18] The federal district court affirmed the Commission's decision. After discussing the interstate characteristics of the Internet and the FCC's unique regulatory treatment of the Internet, the federal district court concurred in the Commission's two-component analysis of an ISP-bound call, and characterized the call terminating at the ISP as local traffic. The federal district court further concluded that the Commission relied upon substantial evidence to conclude that the SWBT/Time Warner interconnection agreement

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[17] The comments filed by the Commission in response to this notice of proposed rulemaking agreed with the FCC's position that commercial negotiations are the optimal means for establishing interconnection agreements. Furthermore, the Commission stated that the resolution of the reciprocal compensation issue is best determined under the aegis of the FCC and FTA §§ 251 and 252. *In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, CC Docket No. 96-98; *Inter-Carrier Compensation of ISP-Bound Traffic*, CC Docket No. 99-68, Comments of the Public Utility Commission of Texas (April 8, 1999).

[18] *Southwestern Bell Telephone Company v. Public Utility Commission of Texas*, No. MO-98-CA-43, 1998 U.S. Dist. LEXIS 12938 (W.D. Tex., June 16, 1998).

required the originating carrier to pay reciprocal compensation for calls to ISPs within the same local calling area.

Judicial Appeal of Docket No. 18082: Southwestern Bell Telephone Company v. Public Utility Commission of Texas (U.S. Court of Appeals, Fifth Circuit)

SWBT subsequently appealed the federal district court's decision to the Fifth Circuit court of appeals.[19] The court of appeals affirmed the lower court's decision. After denying SWBT's challenges to the Commission's exercise of jurisdiction in Docket No. 18082, the federal appellate court concluded that the Commission's decision in Docket No. 18082 did not conflict with the FTA, FCC rules, or FCC rulings. Citing language from the FCC's declaratory ruling on ISP-bound traffic, it found that a state commission may lawfully interpret an interconnection agreement as requiring reciprocal compensation for ISP-bound traffic, particularly given the FCC's past policy of treating ISP traffic as if it were local traffic in other contexts. Furthermore, the federal district court held that the Commission properly interpreted the SWBT/Time Warner interconnection agreement to impose reciprocal compensation obligations for calls to ISPs within a local calling area.[20]

Judicial Appeal of FCC's Declaratory Order: Bell Atlantic Telephone Companies v. Federal Communications Commission (U.S. Court of Appeals, D.C. Circuit)

Bell Atlantic and a group of CLECs appealed the FCC's declaratory ruling to the District of Columbia (D.C.) Circuit court of appeals.[21] The appellate court vacated the FCC's decision and remanded the proceeding to the federal agency for want of reasoned decision-making. The appellate court concluded that the FCC failed to adequately explain why an end-to-end analysis, which the federal agency has traditionally used to determine the jurisdictional nature of a

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[19] *Southwestern Bell Telephone Company v. Public Utility Commission of Texas*, 208 F.3d 475 (5th Cir. 2000).

[20] Throughout its opinion, the court of appeals cited extensively to another federal appellate court's decision on the same issues in support of its conclusions. *See Illinois Bell Telephone Company v. Worldcom Techs., Inc.*, 1790 F.3d 566 (7th Cir. 1999).

[21] *Bell Atlantic Telephone Companies v. Federal Communications Commission*, 206 F.3d 1 (D.C. Cir. 2000).

communication, made sense in the context of the reciprocal compensation issue, in terms of both the FTA and FCC rules. Specifically, it found that "[the FCC] has yet to provide an explanation why this inquiry is relevant to discerning whether a call to an ISP should fit within the local call model of two collaborating LECs or the long-distance model of a long-distance carrier collaborating with two LECs."[22]

In remanding the matter to the FCC, the court of appeals made several observations about the fallacies in the FCC's reliance on the end-to-end analysis in addressing the reciprocal compensation issue. The appellate court noted that a call to an ISP appears to fit within the definition of "termination" in the FCC's rules, that is, the traffic is switched by the carrier whose customer is the ISP and then delivered to the ISP.[23] The FCC, however, failed to apply or mention this definition in its declaratory ruling, instead relying on an end-to-end analysis previously applied in contexts that the appellate court characterized as different and distinct from the context of Internet communications. The appellate court also criticized the contradiction in the FCC's application of the end-to-end analysis to characterize ISP-bound traffic as interstate traffic in view of the FCC's prior rulings exempting ISPs and other interactive computer services from access charges. Finally, the court of appeals pointed out the lack of satisfactory explanation offered by the FCC as to how its conclusions with regard to ISP-bound traffic accord with the statutory definitions of "exchange access" and "telephone exchange service".[24]

In June 2000, the FCC issued a notice seeking comments in response to the remand by the D.C. Circuit court of appeals.[25] The notice requested comment on the jurisdictional nature of

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[22] *Id.* In view of the grounds for remand, the court of appeals did not reach the issue raised by Bell Atlantic with respect to whether FTA § 251(b)(5) preempts state commissions from compelling reciprocal compensation payments for ISP-bound traffic.

[23] *Id.* The relevant FCC rule defines "termination" as "the switching of traffic that is subject to section 251(b)(5) at the terminating carrier's end office switch (or equivalent facility) and delivery of that traffic from that switch to the called party's premises" 47 C.F.R. 51.701(d).

[24] *See* 47 U.S.C. §§ 153(16), 153(47) (2000).

ISP-bound traffic; the scope of the reciprocal compensation requirement in FTA § 251(b)(5); and the relevance of terms such as "termination", "telephone exchange service", "exchange access service", and "information access" to the issue of reciprocal compensation in the context of ISP-bound traffic. Furthermore, the notice requested comment on any new or innovative inter-carrier compensation arrangements for ISP-bound traffic that are currently under consideration or that have been adopted through negotiation or arbitration.

IV. INTER-CARRIER COMPENSATION RATES

The inter-carrier compensation rates approved in the Mega-Arbitrations, as reflected in Attachment A to this Award, form the basis of the inter-carrier compensation rates approved in this Award pursuant to FTA § 252(d)(2). The inter-office transport and tandem switching rates approved in the Mega-Arbitration proceedings are re-adopted in this Award. For the calculation of the bifurcated end-office switching rate approved in this docket, the Commission relies upon the local switching cost studies approved in the Mega-Arbitrations and the Basic Network Function (BNF) cost studies approved in Project No. 16657.[26] For purposes of the methodology approved in this Award for calculating a blended tandem switching rate, the tandem switching and inter-office transport rates approved in the Mega-Arbitrations are elements in the methodology, as well as the bifurcated end-office switching rate approved in this Award.

Consistent with the First Mega-Arbitration Award,[27] the T2A[28], and Section V.A. of this Award, the following definition of "Local Traffic" will apply to the inter-carrier rates approved in this Award and shall be incorporated in affected interconnection agreements:

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[25] *In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, CC Docket No. 96-98; and *Inter-Carrier Compensation of ISP-Bound Traffic*, CC Docket No. 99-68, Public Notice (June 23, 2000).

[26] *Southwestern Bell Telephone Company's Application for Approval of LRIC Studies for Basic Network Access Channel Nonstandard 4-Wire, Type O, et al., Pursuant to P.U.C. SUBST. R. 23.91*, Order No. 8 (Nov. 12, 1997).

[27] First Mega-Arbitration Award at ¶58 (Nov. 8, 1996).

[28] Docket No. 16251, Order No. 55, Attachment 12 at ¶ 1.1.

> Calls originated by [CLEC's] end users and terminated to SWBT's end users (or vice versa) will be classified as "Local Traffic" under this Agreement and subject to reciprocal compensation if the call: (i) originates and terminates in the same SWBT exchange area; or (ii) originates and terminates within different SWBT exchanges, or within a SWBT exchange and an independent ILEC exchange, that share a common mandatory local calling area, *e.g.*, mandatory extended area service (EAS), mandatory extended local calling service (ELCS), or other types of mandatory expanded local calling scopes. For the purposes of reciprocal compensation, a call to an Internet Service Provider is classified as "Local Traffic" if it meets either requirement in (i) or (ii).

V. DISCUSSION OF DPL ISSUES

This proceeding address the four issues in Joint Decision Point List (DPL) filed by the parties on February 22, 2000:

> DPL Issue No. 1: What traffic should be subject to reciprocal compensation?
>
> DPL Issue No. 2: What method should be used to determine inter-carrier compensation?
>
> DPL Issue No. 3: What is the appropriate rate or rates (e.g., symmetrical/asymmetrical) at which compensation should be made?
>
> DPL Issue No. 4: What is the appropriate method by which to bill for this traffic?

A. DPL ISSUE NO. 1: WHAT TRAFFIC SHOULD BE SUBJECT TO RECIPROCAL COMPENSATION?

(a) SWBT's Position

SWBT asserts that the FCC has determined that the FTA's reciprocal compensation requirement applies to the exchange of local traffic only. It defines "local traffic" as traffic that is either within a single exchange or traffic that is between exchanges subject to mandatory local calling; in either instance, such traffic falls within the "basic/local" retail calling scope of an exchange customer.[29] SWBT contends that ISP-bound traffic, however, does not originate and terminate within any such calling scope and is largely interexchange in nature. Consequently, SWBT avers that ISP-bound traffic is not subject to reciprocal compensation. It argues that a

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[29] SWBT Ex. No. 7, Direct Testimony of D. Randy Long at 6.

call placed to an ISP has end-to-end connectivity to almost anywhere in the world--in other words, such a call is not terminated locally but rather to some point on the World Wide Web.[30] In support of this argument, SWBT relies upon the FCC's declaratory ruling addressing the nature of ISP-bound traffic as it relates to reciprocal compensation.[31]

SWBT also states that all local traffic originated through unbundled network elements (UNEs) is eligible for reciprocal compensation. SWBT explains that the manner in which a CLEC decides to originate its customers' calls is irrelevant as to whether reciprocal compensation applies to those calls, given that the CLEC's method of doing business does not affect SWBT's cost to terminate the traffic.[32] SWBT contends, however, that the following types of traffic are not eligible for reciprocal compensation:

- Traffic terminated through Internet Gateways, which generally are not used to originate traffic, but rather serve to receive traffic for purposes of routing that traffic to an ISP local server: SWBT contends that this type of traffic is not "local" in nature and that the traffic flow is inherently "one-way," *i.e.*, there is no exchange of originating and terminating traffic between the carriers.[33]
- Transit carriers: SWBT asserts that such a carrier (*i.e.*, the second or intermediate carrier) neither originates nor terminates the call, but simply directs the call to its destination, and is only entitled to recover the cost for transiting the call across its network.[34]
- FX-type traffic, which is traffic that originates in one local exchange area and is delivered to a telephone number that is assigned to that same local exchange area, although the physical premises for that telephone number and the customer are located in another local exchange area[35]: SWBT states that, but

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[30] SWBT Ex. No. 5, Direct Testimony of Robert Jayroe at 5.

[31] *In the Matter of the Implementation of Local Competition Provisions in the Telecommunications Act of 1996, Inter-Carrier Compensation for ISP-Bound Traffic*, CC Docket No. 96-98, Declaratory Ruling; *Inter-Carrier Compensation of ISP-Bound Traffic*, CC Docket No. 99-68 Notice of Proposed Rulemaking (Feb. 25, 1999).

[32] SWBT Ex. No. 8, Rebuttal Testimony of D. Randy Long at 21.

[33] SWBT Ex. No. 7, Direct Testimony of D. Randy Long at 7-9.

[34] SWBT Ex. No. 7, Direct Testimony of D. Randy Long at 12.

[35] SWBT Ex. No. 7, Direct Testimony of D. Randy Long at 10.

for the retail FX arrangement, the call would be an interexchange, intraLATA long-distance call.[36]

- 8YY traffic, which is traffic consisting of those calls which use "800", "877", or "888" as the area code:[37] SWBT posits that such calls are generally not subject to reciprocal compensation requirements and may be considered "local" for reciprocal compensation purposes only if the call originates and terminates in the same SWBT exchange area or within exchanges that share a common mandatory calling area.[38]

(b) CLECs' Position

The Coalition argues that all traffic originated by the customer of a carrier that is delivered by a terminating carrier pursuant to the calling party's request should be subject to reciprocal compensation.[39] The Coalition asserts that the Commission should re-affirm its precedent treating calls to ISPs as local calls subject to reciprocal compensation in accordance with FTA § 251(b)(5). In view of the D.C. Circuit court of appeals' criticism of the FCC's use of an end-to-end analysis to conclude that ISP-bound traffic is interstate in nature,[40] the Coalition posits that it is unlikely that the FCC, on remand, will develop a convincing analogy between ISP-bound traffic and long-distance traffic on remand to justify its declaratory ruling.[41] Even absent the federal appellate court's remand, the Coalition argues that the segregation of ISP traffic for reciprocal compensation purposes is not justified by any cost differences between ISP-bound traffic and other local traffic, given that the two types of calls use the public switched

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[36] SWBT Ex. No. 7, Direct Testimony of D. Randy Long at 10.

[37] The originating party using one of these area codes is not charged for the call. The carrier terminating the call typically pays for 8YY calls.

[38] SWBT Ex. No. 8, Rebuttal Testimony of D. Randy Long at 22.

[39] Coalition Ex. No. ICG-3, Direct Testimony of Don J. Wood at 7.

[40] *Bell Atlantic Telephone Companies v. Federal Communications Commission*, 206 F.3rd 1 (D.C. Cir. 2000).

[41] Coalition Ex. No. ICG-4, Rebuttal Testimony of Don J. Wood at 4-10.

telephone network in identical ways.[42] Furthermore, the Coalition contends that there is no cost basis for any such differentiation because the cost driver for both types of calls is the same.[43]

The Coalition also asserts that the Commission should reject SWBT's effort to parse out different forms of terminating arrangements for serving ISPs by exempting certain arrangements such as "virtual FX" and "Internet Gateways" from reciprocal compensation. First, the Coalition argues that SWBT's effort to carve out such exemptions is unfounded, both as a matter of technology and as a matter of economic policy.[44] With respect to the so-called Internet Gateway issue, the Coalition contends that the Commission's determination of when reciprocal compensation is due should be technology-neutral. The Coalition believes given the rapid development of new technologies and the consumer demand for Internet access, the Commission should not take any action that would have the effect of dictating how a carrier deploys new technology or designs its networks to serve its customers.[45]

Second, with respect to the so-called virtual FX issue, the Coalition contends that the CLEC service described by SWBT is also provided by SWBT in essentially the same manner. The Coalition believes that any exemption afforded a CLEC's virtual FX traffic would result in discrimination against CLECs and provide a competitive advantage to SWBT's own similar offerings.[46]

AT&T avers that the most efficient and effective approach to addressing the reciprocal compensation issue is to adopt a cost-based rate structure covering all traffic exchanged between AT&T and SWBT which originates and terminates within the same LATA.[47] AT&T states that

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[42] Coalition Ex. No. ICG-3, Direct Testimony of Don J. Wood at 7.

[43] Coalition Ex. No. ICG-3, Direct Testimony of Don J. Wood at 7; Coalition's Initial Brief at 15-16 (April 19, 2000).

[44] Coalition Ex. No. CLEC-1, Direct Testimony of William Page Montgomery at 23-24.

[45] Allegiance Ex. No. 1, Direct Testimony of Richard Anderson at 2.

[46] Coalition Ex. No. CLEC-2, Rebuttal Testimony of William Page Montgomery at 37-39.

the one exception to its proposal is AT&T's Feature Group D access traffic, which is generated via its long-distance network.[48] Furthermore, AT&T agrees with the Coalition that ISP-bound traffic is local traffic, possessing all the cost and technical characteristics of a local call.[49] AT&T argues that a CLEC should be compensated for any costs that it incurs in terminating a call from a SWBT customer because SWBT avoids having to incur those costs.[50]

With regards to 8YY traffic, AT&T asserts that an 8YY call that originates on one carrier's network and terminates on another's network without the need for any interexchange carrier (IXC) transport is carried on local interconnection trunks and, therefore, is subject to reciprocal compensation.[51] AT&T further argues that virtual FX traffic and Internet Gateway traffic should not be treated differently from other local traffic. It states that there are no underlying routing or geographic characteristics that uniquely distinguish such traffic from other types of local calls. AT&T observes that, depending upon the physical boundaries of a customer's pre-defined local calling area, a local call may well traverse more central offices and route miles than a given toll call.[52] Moreover, AT&T contends that SWBT's position regarding Internet Gateway traffic would discriminate based on a CLEC's technology and network architecture and would be anti-competitive.[53]

*(c) **Commission Decision***

The Commission is again not persuaded by SWBT's argument that it should treat ISP-bound traffic differently for purposes of reciprocal compensation. The Commission has

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[47] AT&T Initial Post-Hearing Brief at 5 (April 19, 2000).

[48] AT&T Ex. No. 5, Direct Testimony of Maureen A. Swift at 12.

[49] AT&T Initial Post-Hearing Brief at 11 (April 19, 2000).

[50] *Id.* at 12.

[51] AT&T Ex. No. 5, Direct Testimony of Maureen A. Swift at Direct at 12.

[52] AT&T Ex. No. 4, Rebuttal Testimony of Patricia D. Kravtin at 20.

[53] *Id.*

previously concluded that ISP-bound traffic is local in nature and reaffirms that such traffic is eligible for reciprocal compensation in this proceeding. Its prior rulings remain viable from technological, policy, and legal standpoints, and they are now supported by the federal appellate court decisions in Southwestern Bell Telephone Co. v. Public Utility Commission of Texas and Bell Atlantic Telephone Companies v. Federal Communications Commission. Moreover, designating ISP-bound traffic as local traffic is not inconsistent with any action taken by the FCC on the matter. Even if the designation of ISP-bound traffic as local is subject to future challenge at the FCC and/or in the courts, the Commission finds independently that it is reasonable to compensate such traffic as local traffic. Finally, the Commission concludes that there are no compelling policy reasons for establishing a reciprocal compensation mechanism that would require the separation and/or measurement of ISP-bound traffic.

The Commission also reaffirms its previous determination that reciprocal compensation arrangements apply to calls that originate from and terminate to an end-user within a mandatory single or multi-exchange local calling area, including the mandatory EAS/ELCS areas comprised of SWBT exchanges and the mandatory EAS/ELCS areas comprised of SWBT exchanges and exchanges of independent ILECs.[54] *The Commission finds that to the extent that FX-type and 8YY traffic do not terminate within a mandatory local calling scope, they are not eligible for reciprocal compensation. The Commission reiterates that this Award does not preclude CLECs from establishing their own local calling areas or prices for purpose of retail telephone service offerings.*[55]

Finally, the Commission agrees with SWBT that transit traffic should not be eligible for reciprocal compensation. The Commission addresses transit traffic in its discussion of DPL Issue No. 4.

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[54] *See* First Mega-Arbitration Award at ¶58; Project No. 16251, Order No. 55, Attachment 12 at ¶ 1.1. *See also* Evaluation of the Public Utility Commission of Texas, *In the Matter of Application of SBC Communications Inc., and Southwestern Bell Telephone Company, and Southwestern Bell Communications Services, Inc. d/b/a Southwestern Bell Long Distance for Provision of In-Region, InterLATA Services in Texas Pursuant to Section 271 of the Telecommunications Act of 1996 To Provide In- Region*, CC Docket No. 00-4, at 88 (Jan. 31, 2000); Project No. 16251, Final Staff Report on Collaborative Process at 103-104 (Nov. 18, 1998).

[55] *See* First Mega-Arbitration Award at ¶59.

B. DPL ISSUE NO. 2: WHAT METHOD SHOULD BE USED TO DETERMINE INTER-CARRIER COMPENSATION?

The parties' positions regarding DPL Issue No. 2 are separated into three areas: the rate symmetry issue, the tandem issue, and the rate structure issue.

1. Rate Symmetry Issue

(a) CLECs' Position

The Coalition states that inter-carrier compensation rates must be symmetrical.[56] AT&T proposes symmetric reciprocal compensation on a LATA-wide basis.[57] Based on its own cost study, Taylor Comm. proposes asymmetric rates that are almost twice those approved for SWBT in the Mega-Arbitration proceedings.

(b) SWBT's Position

SWBT argues that inter-carrier compensation rates should be set symmetrically at the total element long-run incremental cost (TELRIC) of a fully efficient competitor.[58] SWBT avers that there should be a single TELRIC study to measure the forward-looking economic cost of an efficient firm.[59] SWBT also asserts that there are efficiency consequences of establishing a rate based on costs higher than those of the low-cost provider because when the high-cost provider remains in the market, resources are wasted.[60]

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[56] Coalition's Initial Brief at 34 (April 19, 2000).

[57] AT&T Initial Brief at 5 (April 19, 2000).

[58] SWBT Ex. No. 14, Direct Testimony of William Taylor at 5.

[59] *Id.* at 22.

[60] *Id.* at 5.

(c) Commission Decision

Parties brought two versions of asymmetric rates before the Commission. The first, as proposed by Taylor Comm., involves asymmetric rates between carriers. The second is implicit in SWBT's proposal to segregate ISP-bound traffic from voice traffic.

The Commission adopts the recommendation put forth by the CLEC Coalition for symmetric rates across carriers. The Commission finds that symmetric rates place the interconnected parties, ILEC and CLEC alike, in a position of parity. The Commission further recognizes that symmetrical rates derived from one source--here, the rates set in the Mega-Arbitrations-- are administratively easier to manage than asymmetric rates based on carriers' individual costs. (See additional discussion regarding rates under DPL Issue No. 3.)

Furthermore, the Commission rejects the adoption of different inter-carrier compensation for voice and ISP-bound traffic. At present, the Commission is not persuaded that the methodologies used by SWBT to identify and segregate voice traffic from ISP-bound traffic are reliable or consistent. In reaching this conclusion, the Commission recognizes that voice traffic varies both in call duration and distance, and that any attempt to segregate voice and ISP traffic for the purposes of assessing asymmetric rates would be problematic, at best. Moreover, the Commission does not accept minutes-of-use (MOU), number tracking, or billing records as accurate discriminators of voice and ISP-bound traffic.

2. Tandem Issue

The FCC's Local Competition Order dedicates two paragraphs to the so-called "tandem issue."[61] In its discussion, the FCC found that telecommunications carriers can incur additional costs when calls are terminated through a tandem switch. The FCC concluded that states may

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[61] *In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Provsions in the Telecommunications Act of 1996,* CC Docket No. 96-98 at ¶¶1090-1091 (Aug. 8, 1996) (Local Competition Order).

establish transport and termination rates that vary according to whether the traffic is routed through a tandem switch or directly to the end-office. In setting such rates, the FCC indicated that states must also consider whether new technologies perform functions similar to those performed by an ILEC's tandem switch and whether some or all calls terminating on the new entrants' network should be priced the same as the sum of transport and termination via the ILEC's tandem switch. The FCC also concluded that where the interconnecting carrier's switch serves a geographic area comparable to that of the ILEC's tandem switch, the appropriate proxy for the additional costs incurred is the ILEC's tandem interconnection rate. The resulting FCC rule, 47 C.F.R. 51.711(a)(3), however, only includes comparability to the area served by the ILEC's tandem switch as a precondition for receiving compensation for tandem switching. The FCC also states that the appropriate rate for the carrier other than an ILEC is the ILEC's tandem interconnection rate.

In addressing the tandem issue, the parties devoted considerable effort discussing the New York Public Service Commission (NYPSC) decision concerning reciprocal compensation (NYPSC Order).[62] The NYPSC's inquiry into reciprocal compensation grew out of the unanticipated development of the substantial imbalance in traffic flows and revenue streams between ILECs and some CLECs with a preponderance of customers, such as ISPs, that receive far more calls than they originate.[63] The NYPSC order refers to such traffic as "convergent". The NYPSC order determined that once the ratio of incoming to outgoing traffic reaches 3:1, the inference of predominantly convergent traffic becomes stronger and implies greater efficiency and lower costs in the termination of traffic. The NYPSC order indicates that the inference of lower costs cannot be disregarded if compensation is to be cost-based, but is not conclusive enough to have a definitive effect on rates. Consequently, the NYPSC concluded, in part, that the inference of lower costs could be addressed by a rebuttable presumption allowing a CLEC to

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[62] *Proceeding on Motion of the Commission to Reexamine Reciprocal Compensation, Opinion and Order Concerning Reciprocal Compensation*, State of New York Public Service Commission Opinion and Order Concerning Reciprocal Compensation, Opinion No. 99-10, Case 99-C-0529 (Aug. 26, 1999) (NYPSC Order).

[63] *Id.* at 1.

show that its network and service are such as to warrant tandem rate compensation for all traffic.[64]

In this regard, the NYPSC developed a rate structure using a 3:1 ratio of incoming to outgoing traffic as the point after which end-office rates alone would apply. The NYPSC allowed CLECs wishing to collect the tandem rate for traffic above the 3:1 ratio, however, to rebut the presumption that traffic above the ratio costs less to serve by showing that its network and service warrant tandem-rate compensation for all traffic. The NYPSC identified several network design factors that may be used to make such a showing:

- The number and capacity of central office switches;
- The number of points of interconnection offered to other local exchange carriers;
- The number of collocation cages;
- The presence of SONET rings and other types of transport facilities; and
- The presence of local distribution facilities such as coaxial cable and/or unbundled loops.

The NYPSC stated that the presence of some or all of these network components in substantial quantities would demonstrate that the carrier in question was investing in a network with tandem-like functionality, designed to both send and receive customer traffic.[65]

(a) SWBT's Position

SWBT cautions the Commission that customer dispersion should be a consideration when comparing CLEC and ILEC service areas. SWBT witness Mr. Jayroe states that when SWBT serves a wide area but a CLEC serves only a dense downtown area to the exclusion of customers dispersed throughout SWBT's area, the CLEC fails the geographic area comparability test.[66] SWBT witness Mr. Wynn contends that if a CLEC serves a comparable geographic area

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[64] *Id.* at 59.

[65] *Id.* 60-61.

[66] Tr. at 484 and 485 (May 5, 2000).

and incurs additional costs, then it may qualify for the tandem served rate. But given that 92% of traffic are not using a fiber ring but instead using a loop facility, the equivalent of a line facility, there are no additional costs incurred; just as CLECs are serving an end customer.[67] SWBT deduces that since CLECs have nearly 92% of their traffic go to ISPs, their network must be designed to maximize that revenue instead of designed efficiently to serve voice traffic.[68] SWBT reports that Taylor states that almost 80% of its ISP customers are collocated and 73% of Allegiance's ISP customers are collocated.[69]

SWBT urges the Commission to adopt a functionality test in addition to the FCC's comparability standard. SWBT observes that there are functional differences between a tandem office switch and an end office switch. A tandem office connects end offices to other end offices, other ILECs, and interexchange carriers, while an end office connects to end-users. Moreover, according to SWBT, a tandem office does not need to record user billing information, supply electric power to the equipment at the end of the line, or convert between analog and digital signals.[70] Given this difference in functionality, the tandem rate paid by an originating carrier to the terminating carrier is in addition to the end–office rate.

SWBT attests that a CLEC can bypass paying SWBT the tandem rate because SWBT gives all carriers the option to interconnect at either a tandem office switch, end office switch, or both.[71] SWBT calculated that approximately 58% of all CLEC trunks interconnected to SWBT are interconnected to end offices.[72] SWBT requests that CLECs provide it the same choices for interconnection so that it can control its own costs by bypassing the tandem rates. SWBT

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[67] Tr. at 523, 524 (May 5, 2000).

[68] Tr. at 556 (May 5, 2000).

[69] SWBT Ex. No. 16, Direct Testimony of Ed Wynn at 8.

[70] SWBT Ex. No. 5, Direct Testimony of Robert Jayroe at 13.

[71] ICG witness Mr. Starkey confirmed that CLECs have the option to interconnect with SWBT at both tandem and end office level, and acknowledged that SWBT does not have that same option. *See* Tr. at 543-544 (May 5, 2000).

contends that such choice is not possible from most CLECs, which generally operate switches that perform both tandem and end office functions.

As an initial step, SWBT proposed that the Commission conduct a needs-based test ascertaining whether the revenues CLECs receive from ISPs recover their appropriate costs.[73] SWBT also proposed various functionality tests: a "parity of function" test[74]; a facility-based reasonableness test based on a CLEC's incurrence of additional costs[75]; a test addressing whether a CLEC offers SWBT the choice of delivering traffic at a point designated as the CLEC's tandem or at a point designated as the CLEC's end office[76]; and a test requiring proof that the CLEC's network architecture is designed for the mutual exchange of local voice traffic and that the switch is serving end users in a geographic area comparable to a SWBT tandem.[77]

SWBT admits that it also operates switches that perform both a tandem and end office functions, but claims that the two functions are separated in a manner that the tandem portion of the switch carries only trunk-to-trunk traffic.[78] SWBT witness Mr. Jayroe states that while SWBT may perform its tandem switching and end office switching functions in the same building, it does not collocate with end customers. SWBT avers that function rather than location is relevant; even if the called customer is located across the street from the tandem switch, a tandem function and an end office function could still be performed for that call.[79]

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[72] SWBT Ex. No. 5, Direct Testimony of Robert Jayroe at 14-16.

[73] SWBT Ex. No. 16, Direct Testimony of Ed Wynn at 23.

[74] SWBT Ex. No. 5, Direct Testimony of Robert Jayroe at 14 and 15.

[75] Tr. at 472, 473, 494 (May 5, 2000).

[76] SWBT Position Statement at 2 (May 16, 2000).

[77] *Id.* at 3.

[78] SWBT Ex. No. 5, Direct Testimony of Robert Jayroe, at 14.

[79] Tr. at 474-475 (May 5, 2000).

While asserting that the tandem rate should never apply to ISP-bound traffic,[80] SWBT generally agrees that all of the factors noted by the NYPSC have at least some value as indicia of tandem functionality vis-à-vis non-ISP-bound traffic. SWBT singles out one of the factors as far more significant than the others: the number of points of interconnection offered to other local exchange carriers.[81]

Finally, SWBT proposes a streamlined standard for determining CLEC tandem functionality that does not involve any Commission activity.[82] As an alternative, SWBT proposes an expedited 45-day qualification procedure involving affidavits and certification by the Commission.[83]

(b) CLECs' Positions

ICG believes that the reciprocal compensation rate paid by the originating carrier should be based on the *capability* that the terminating carrier's network provides, rather than the latter's network design and arrangement.[84] ICG witness Mr. Starkey further avers that CLEC switches only need to be capable of serving a comparable area, but need not actually serve a comparable area in order for a particular reciprocal compensation to apply.[85] ICG asserts that this capability should be measured by geographic service area because the networks of most CLECs are built to take advantage of the decreasing costs of transport relative to switching facilities and to efficiently implement new switching technologies. ICG asserts that a reciprocal compensation mechanism that focuses on the underlying equipment used, rather than functionality provided,

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[80] SWBT Position Statement at 2 (May 16, 2000).

[81] *Id.*

[82] *Id.* at 3.

[83] *Id.*

[84] Coalition Ex. No. ICG-3, Direct Testimony of Don Wood at 28.

[85] Tr. at 444 (May 5, 2000).

would penalize network designs that are more efficient than their competitor.[86] Additionally, ICG witness Mr. Wood avers that CLECs connect to SWBT end offices to avoid SWBT's high blocking rate,[87] rather than to avoid paying the tandem rate.

The Coalition maintains that, to recognize the development of various CLEC network architectures, the Commission should not look beyond the area comparability test.[88] The Coalition believes that functionality tests are ultimately circular. Coalition witness Mr. Montgomery maintains that it is difficult for a regulator to develop or apply a functionality test in any non-discriminatory fashion because it is difficult to take into account individual CLECs' characteristics in formulating a general rule that is viable. Mr. Montgomery asserts that an area comparability test, on the other hand, is much clearer than any functionality test.[89]

The Coalition also criticizes SWBT's proposal of requiring CLECs to establish multiple points of interconnection, asserting that it is unworkable from a network perspective.[90] The Coalition asserts that implementation of such a proposal would require a wasteful re-engineering of CLEC's networks because additional points of interconnection to the same switch would waste ports and switching capacity on the CLEC network.[91]

Coalition witness Mr. Wood contends that the NYPSC's factors related to network design should not be applied by the Commission in this docket because they fail to identify the relevant functionality provided by a CLEC network.[92] He contends that regardless of the number of switches, as long as a CLEC can terminate traffic over an ILEC tandem serving area through one

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[86] Coalition Ex. No. ICG-3, Direct Testimony of Don Wood at 28.

[87] Tr. at 546 (May 5, 2000).

[88] Coalition Ex. No. CLEC-1, Direct Testimony of William Page Montgomery at 35, 36.

[89] *Id.* at 36-38.

[90] Coalition's Reply Brief on Issues Identified by the Commission at 2 (June 1, 2000).

[91] *See generally* Coalition's Reply Brief on Issues Identified by the Commission at 3 (June 1, 2000).

[92] Coalition Ex. No. 41, Supplemental Testimony of Don J. Wood at 9.

point of interconnection, then the CLEC is providing tandem functionality.[93] Mr. Wood also argues that numerous collocation arrangements do not necessarily indicate tandem functionality because they may not enable an ILEC to deliver its traffic to a comparable geographic area through a given point of interconnection. Indeed, he states that a CLEC with fewer collocation arrangements may be able to provide tandem functionality.[94] Furthermore, Mr. Wood contends that SONET rings and local distribution facilities may not be necessary to provide tandem functionality, given that a CLEC may choose to use wireless distribution facilities.[95]

The Coalition submits that the record in this docket is sufficient for the Commission to order application of the tandem served rate in this proceeding, arguing that it would be a waste of resources to re-create a record in additional proceedings to further address this matter.[96] The Coalition also offers a process for Commission determinations of CLEC eligibility for the tandem rate.[97]

WCOM notes that FCC's Local Competition Order makes no mention of requiring the same capacity or the performance of similar functions in order for the tandem rate to apply.[98] Therefore, WCOM concludes that geographic area comparability is the only test to use in making such a determination. WCOM also notes that since SWBT's Project Pronto will move SWBT's network away from the traditional hub-and-spoke architecture to architecture employing more fiber rings. CLECs' non-traditional architecture should be recognized as an innovation to be encouraged rather than penalized. Furthermore, WCOM witness Mr. Price states that the kind of hierarchy that exists in a typical ILEC's architecture is not duplicated in a

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[93] *Id.*

[94] *Id.* at 11.

[95] *Id.*

[96] Coalition Statement of Position at 1 (June 16, 2000).

[97] *Id.* at 2.

[98] WCOM Ex. No. 1, Direct Testimony of Don Price at 30-32.

CLEC's network.[99] WCOM also submits that numerous point of interconnection should not be a requirement for a CLEC to meet the geographic comparability test.[100] WCOM urges the Commission to reject SWBT's proposal to establish rules requiring any migration from tandem to end office trunks.[101]

e.spire witness Mr. Falvey argues that, due to carriers' different architecture arrangements, the FCC has clearly found that a switch architecture analysis, which partitions a CLEC switch into an end office switch and a tandem office switch, is irrelevant for purposes of determining when the CLEC qualifies for a tandem rate.[102]

Intermedia witness Mr. Jackson states that many ILECs require CLECs to route traffic directly to end offices after a certain level of traffic has occurred. But, he observes, overflow traffic from end office trunks can be directed to a tandem switch, if the ILEC chooses to do so. Consequently, Mr. Jackson does not view the overflow of traffic to a SWBT tandem switch as a "privilege" to connect to the tandem switch. Rather, Mr. Jackson views such a situation as a failure of SWBT to provide sufficient information to allow CLECs to set up more direct end office trunking.[103]

AT&T witness Mr. Zubkus posits that the only relevant consideration in determining if the tandem rate applies is whether the CLEC's switch is capable of serving the ILEC's tandem area.[104] AT&T also submits that none of the factors outlined by the NYPSC contain a bright-line threshold for rebutting the presumption that the tandem rate is not due.[105] Furthermore, AT&T

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[99] Tr. at 492 (May 5, 2000).

[100] SWBT's Supplemental Brief on the "Blended Rate" Issue at 6 (May 26, 2000).

[101] WCOM's Brief on Issues Raised in the May 18th Hearing at 2 (May 26, 2000).

[102] Tr. at 492 (May 5, 2000).

[103] Tr. at 549, 550 (May 5, 2000).

[104] Tr. at 439, 442 (May 5, 2000).

[105] AT&T Ex. No. 12, Direct Testimony of Javier Rodriguez at 8.

argues that those factors appear to be ILEC-centric. For example, the number of points of interconnection offered to other exchange carriers "suggests a tendency to look at requiring CLECs to mirror the ILEC's tandem/end office architecture."[106] AT&T believes that it is entitled to the full tandem rate and observes that the standard for qualification of tandem interconnection rate is "the Commission will know it when they see it."[107] AT&T believes that it is entitled to the tandem switching element because its switches provide the functionality and geographic scope of SWBT's tandems.[108]

(c) Commission Decision

The Commission acknowledges that the relevant language in the FCC's Local Competition Order (¶1090, 1091) does not precisely match the language in 47 C.F.R. 51.711(a)(3). Given the FCC's discussion in the First Report and Order, the Commission concludes that a terminating carrier shall be compensated for the "additional costs" incurred when using tandem functions to terminate traffic.

The Commission disagrees with the CLECs' assertion that the FCC's rules require only a showing that the terminating carrier's switch has the capability of serving the same geographic area as the ILEC's tandem switch. The Commission concludes that in order for a CLEC that does not have a hierarchical, two-tier switching system to receive reciprocal compensation for performing tandem functions, the CLEC must demonstrate that it is actually serving the ILEC tandem area using tandem-like functionality, instead of just demonstrating the capability to serve the comparable geographic area. In making this functionality determination, the Commission shall consider a number of network design factors, which include, but are not limited to:

1. the number and capacity of central office switches;

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[106] Coalition Ex. No. 41, Supplemental Testimony of Don J. Wood at 8.

[107] AT&T's Supplemental Brief on Tandem Issue at 12 - 13 (May 26, 2000).

[108] AT&T Ex. No. 7, Direct Testimony of Jon A. Zubkus at 7.

2. *the number of points of interconnection offered to other local exchange carriers;*
3. *the number of collocation cages;*
4. *the presence of SONET rings and other types of transport facilities;*
5. *the presence of local distribution facilities such as coaxial cable and/or unbundled loops; or*
6. *any other indicia reliably demonstrating that the LEC is transporting a significant volume of traffic to a geographically dispersed area.*

These factors are similar to those employed by the NYPSC in addressing the tandem issue and incorporate the FCC's geographic area test. Because a carrier's proof of actual tandem functionality will be fact-driven, a LEC may demonstrate such functionality either in an arbitration proceeding or other appropriate proceeding designated by the Commission. As noted in Section V.B.3 of this Award, however, a CLEC that does not have a hierarchical, two-tier switching system must demonstrate actual tandem-like functionality only at the point the ratio of its terminating-to-originating traffic reaches a certain threshold. Up to that point, it is presumed that the CLEC is actually performing tandem functions to the same degree as SWBT.

3. Rate Structure

Throughout the proceeding, parties discussed various options for reciprocal compensation, ranging from the adoption of bill-and-keep, rate caps, the Mega-Arbitration rate structure, and a staff proposal.

(a) Staff Proposal

Commission Staff proposes the adoption of a "tandem blended rate" employing the following rate structure: end office rate + (tandem rate x % SWBT tandems used) + (transport x % SWBT tandems used). In the proposal, the resulting rate would apply to all traffic up to a specified cap.[109]

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[109] *See* Order Nos. 8 and 9 (May 19 and 22, 2000).

(b) CLECs' Position

WCOM emphasizes that the relevant components of the Mega-Arbitration rate structure for inter-carrier compensation include end office switching, tandem switching and interoffice common transport.[110] To the extent that the Commission considers a ratio or a blended rate, WCOM's prefers a blended rate that rewards CLECs that utilize a high percentage of direct end office trunking.[111]

Taylor Comm. proposes asymmetric per minute rates between carriers. It proposes to pay SWBT at SWBT's cost, while SWBT would pay Taylor Comm. at Taylor Comm.'s cost.[112] Under Taylor Comm.'s proposal, SWBT would pay Taylor Comm. rates in excess of what Taylor Comm. would pay SWBT. Additionally, Taylor Comm. equates bill-and-keep to a very efficient bartering arrangement that makes sense only when traffic is in balance between the two carriers. Taylor Comm. argues that if traffic is not in balance, however, one carrier performs all the work and the other carrier gets a free ride if a bill-and-keep compensation scheme is adopted.[113]

The Coalition maintains that the Commission should adopt the existing Mega-Arbitration rate structure.[114] Coalition witness Mr. Montgomery explains that the bill-and-keep method was historically an informal process used typically between a larger ILEC and a smaller ILEC in a monopoly environment. Mr. Montgomery stresses that LECs agreed to such arrangements when they exclusively served service areas and did not compete with each other. He contends that today, in a competitive environment, there is a need for an arm's-length mechanism by which carriers compensate each other for the termination of calls.[115]

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[110] WCOM Ex. No. 1, Direct Testimony of Don Price at 4.

[111] WCOM's Brief on Issues Raised in the May 18th Hearing, at 2 (May 26, 2000).

[112] *See generally* Taylor Comm. Ex. No. 1, Direct Testimony of August H. Ankum and Taylor Comm. Ex. No. 5, Supplemental Testimony of Dr. August Ankum.

[113] Tr. at 167 (April 4, 2000).

[114] Coalition Ex. No. CLEC-1, Direct Testimony of William Page Montgomery at 25.

The Coalition further states that "[it] does not quarrel with certain of the intended results of the tandem blended rate approach."[116] The Coalition acknowledges that the tandem blended rate is simple to administer and may eliminate many disputes, and also recognizes that such a rate recognizes the CLECs' legal right to receive compensation for tandem switching and transport costs. The Coalition also appreciates that the proposal requires that symmetric rates be based on ILEC costs. The Coalition "strongly objects", however, to the proposal, due to the elements in its rate formula and the consequences of its implementation.[117] It indicates that the level of CLEC direct trunking to SWBT end offices is not a meaningful proxy by which to reduce SWBT's or a CLEC's rates for terminating another carrier's traffic. The Coalition further argues that the formula mistakenly assumes that less use of a tandem by a CLEC equals less tandem functionality. Moreover, it contends that the proposed tandem blended rate's use of a specific percentage is flawed because the use of tandem versus direct end-office switching is constantly changing.[118] Finally, the Coalition avers that the proposed tandem blended rate will either under- or over-compensate most CLECs most of the time.

The Coalition also strongly urges the Commission to avoid imposing separate rates for individual CLECs.[119] The Coalition proposes a default rate, that is, the end office switching rate plus the tandem-switching rate, without the transport rate. Nevertheless, under the Coalition's proposal, a CLEC is still given a choice to receive compensation for transport if it demonstrates that it terminates traffic beyond the footprint of an ILEC's end office.[120]

Allegiance states that it is not opposed to the concept of a tandem blended rate as long as it is applied symmetrically, to all local traffic and without any ratio or cap. Allegiance further

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[115] Tr. at 154-155 (April 4, 2000).

[116] Coalition's Brief on Issues Identified by the Commission at 6 (May 26, 2000).

[117] SWBT's Supplemental Brief on the "Blended Rate" Issue at 6 (May 26, 2000).

[118] *Id.* at 7.

[119] *Id.* at 8.

[120] *Id.* at 11.

states that such a blended rate would facilitate billing and avoid disputes over eligibility for the tandem rate.[121] Finally, Allegiance contends that the imposition of the tandem blended rate will not encourage or require CLECs to build inefficient networks, given that many of the first generation of interconnection agreements provide for use of blended reciprocal compensation rates.[122]

AT&T proposes symmetric rates for reciprocal compensation on a LATA-wide basis.[123] Under this LATA-wide proposal, in instances in which AT&T purchases UNEs from SWBT, AT&T proposes the use of a bill-and-keep compensation scheme.[124] In support of its proposal, AT&T concludes that nothing in the FTA prohibits a state from expanding the definition of "local traffic" beyond "mandatory EAS" for the purposes of § 251(b)(5).[125] AT&T states that there are 'laudable" aspects of Staff's tandem blended rate proposal, but the problems with the proposal far outweigh its potential benefits.[126] AT&T contends that the proposed tandem blended rate will improperly encourage network deployment based on reciprocal compensation.[127] Because it seeks to configure a network architecture to interconnect only at SWBT tandems, AT&T avers that the tandem blended rate would be grossly unfair to it, given that other CLECs may choose to interconnect more often at SWBT end offices.[128]

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[121] Allegiance Post 5-18-2000 Hearing Brief, at 4 (May 26, 2000).

[122] *Id.* at 6.

[123] *See* AT&T Ex. No. 5, Direct Testimony of Maureen A. Swift at 4; AT&T Initial Post-Hearing Brief at 5 (April 19, 2000). In its pending arbitration proceeding with SWBT, Docket No. 22315, AT&T has proposed an interconnection architecture in which AT&T is responsible for delivering traffic to SWBT's tandems and SWBT is responsible for delivering traffic to AT&T's own switches. If this interconnection architecture is not adopted, then AT&T will pay SWBT according to levels of switching offices connected, while SWBT will pay AT&T the three-part tandem rate. *Petition of Southwestern Bell Telephone Company for Arbitration with AT&T Communications of Texas, L.P., TCG Dallas, and Teleport Communications, Inc. Pursuant to Section 252(B)(1) of the Federal Telecommunications Act of 1996,* Docket No. 22315 (pending).

[124] AT&T Ex. No. 5, Direct Testimony of Maureen A. Swift at 10.

[125] *Id.* at 9.

[126] AT&T's Supplemental Brief on Tandem Issues at 4, 5 (May 26, 2000).

[127] *Id.* at 5.

(c) SWBT's Position

SWBT suggests two methods for minimizing what it characterizes as the CLECs' over-recovery of compensation related to the termination of ISP-bound traffic: (1) a cap on the total amount of inter-carrier compensation that a CLEC receives for terminating ISP-bound traffic, which limits the amount of such compensation to two times the amount of compensation the CLEC pays to the ILEC, or (2) the use of a proxy for the appropriate costs incurred by CLECs in providing services to ISPs.[129]

Anticipating that CLECs may allege that it is difficult to track voice versus ISP-bound traffic, SWBT proposes that the existing TELRIC-based reciprocal compensation rate would apply to traffic that is relatively in balance between SWBT and the CLEC. More specifically, SWBT states that these rates will apply for traffic that is in balance at a 2:1 terminating-to-originating ratio between SWBT and a CLEC.[130] Under this proposal, if traffic "exceeds" this 2:1 ratio, SWBT indicates that it is appropriate to presume that the excess is ISP-bound traffic. Despite this presumption, however, SWBT concedes that CLECs would be given the opportunity to prove that the traffic in excess of this 2:1 ratio is voice traffic and subject to compensation using existing TELRIC-based rates.[131] With regard to traffic in excess of the 2:1 ratio that the CLEC does not demonstrate to be voice traffic, SWBT asserts that only the tandem switching rate should apply to the termination of such traffic.[132] SWBT declines to characterize its

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[128] *Id.* at 6.

[129] SWBT Ex. No. 16, Direct Testimony of Ed Wynn at 26.

[130] *Id.* at 27.

[131] SWBT substantiates this 2:1 ratio by a traffic study, which spans from 1997 to 1999. During this time period, SWBT terminated 1.5 billion local non-ISP minutes of use (MOUs) to the CLECs participating in this proceeding, while these same CLECs terminated to SWBT 1.2 billion MOUs. Based on this data, SWBT claims that the balance of traffic that is truly local would be 1.32:1. SWBT recommends using this ratio as a surrogate for distinguishing ISP traffic. *See* SWBT Ex. No. 16, Direct Testimony of Ed Wynn at 27.

[132] *Id.* at 28.

proposal as effectively akin to a bill-and-keep methodology, stating that ISP-bound traffic has a different compensation scheme due to the FCC's ISP exemption relating to access.[133]

SWBT states that it does not have significant objections to the use of Staff's tandem blended rate in certain contexts, provided that concrete trunking rules are also adopted to ensure that CLECs move traffic from SWBT's tandem trunks to direct end office trunks when specific traffic volume limits are exceeded.[134] SWBT emphasizes that if the Commission adopts a tandem blended rate, then it should clarify that CLECs are limited as to the volume of traffic they may deliver to SWBT's tandem before being required to establish direct trunking to end offices.[135] Regarding the imposition of a cap, SWBT states that "a two to one ratio would work; a three to one would also be within the permissible."[136] However, SWBT states that any over-compensation "could be mitigated by setting an absolute cap at a two-to-one, rather than a three-to-one, imbalance.[137] SWBT states that, due to the administrative ease in using such a tandem blended rate, it could have significant advantage over any multi-factor functional test such as that adopted by the NYPSC.[138]

SWBT rejects the Coalition's "compromise" proposal, arguing that it will over compensate for ISP-bound traffic, violates federal law, and is administratively burdensome.[139] Also, SWBT maintains that AT&T's LATA-wide proposal goes beyond what is allowed under state and federal law.[140] SWBT believes that AT&T's LATA-wide proposal in effect reduces AT&T's costs of serving a concentrated base of business customers and ISPs without also

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[133] Tr. at 102-106 (April 4, 2000).

[134] SWBT's Supplemental Brief on the "Blended Rate" Issue at 3 (May 26, 2000).

[135] *Id.* at 4.

[136] Tr. at 619 (May 18, 2000).

[137] SWBT's Supplemental Reply Brief on the "Blended Rate" Issue at 6 (June 1, 2000).

[138] SWBT's Supplemental Brief on the "Blended Rate" Issue at 5-6 (May 26, 2000).

[139] SWBT's Supplemental Reply Brief On the "Blended Rate" Issue at 6-7 (June 1, 2000).

serving geographically dispersed residential customers.[141] SWBT further contends that AT&T's proposal cannot possibly be cost-based if it sets the same rate for local, toll, and access traffic terminated within an entire LATA.[142] Because AT&T terminates less traffic than it originates, SWBT argues that AT&T would be over-compensated under its proposal, while at the same time avoiding payment of appropriate access charges related to interexchange traffic.[143]

(d) Commission Decision

The Commission prefers the bill-and-keep method over any of the other proposals reviewed in this proceeding. While the Commission hopes that bill-and-keep will become a viable option as the market matures, it nevertheless recognizes that current volumes of traffic between carriers do not support adoption of the bill-and-keep method as a general rule at this time.

The Commission has long viewed the minute-is-a-minute approach as a goal by which to base compensation between carriers. AT&T's LATA-wide proposal, however, has implications for ILEC revenue streams, such as switched access, that have not been fully examined in this proceeding. Consequently, the Commission declines to adopt AT&T's LATA-wide proposal because it has ramifications on rates for other types of calls, such as intraLATA toll calls, that are beyond the scope of this proceeding.

The Commission applauds the introduction and application of advanced technologies. The Commission finds, however, that the current means by which reciprocal compensation is accomplished has contributed to a significant imbalance of traffic between originating and terminating carriers. In other words, the current scheme has created perverse economic

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[140] SWBT Post-Hearing Brief at 38-39 (April 19, 2000).

[141] *Id.* at 39.

[142] SWBT Ex. No. 8, Rebuttal Testimony of Randy Long at 17.

[143] *Id.* at 19.

incentives that result in an imbalance in revenues between certain interconnected carriers, in favor of the termination carrier.

The Commission concludes that the use of a threshold traffic ratio is an equitable device by which an originating carrier's costs can be mitigated and the efficient delivery of traffic maintained. The Commission finds that the "tandem blended rate" approach is appropriate up to a 3-1 (terminating traffic to originating traffic) threshold imbalance.[144] *As stated below, this tandem blended rate reflects that only a percentage of the calls switched use tandem functions and are terminated in a geographically dispersed area. The record in this docket supports these conclusions. When a carrier exceeds that 3-1 ratio threshold, it is reasonable to presume that predominately convergent traffic is occurring and the "excess" traffic should be compensated using the end office rate only. The Commission notes that this presumption, however, is rebuttable. The terminating carrier may demonstrate "actual tandem-like functionality" in the delivery of this "excess" using various network design factors adopted in Section V.B.2 of this Order.*

The Commission concludes that it is not equitable to allow the full tandem rate to be assessed by a terminating carrier on every call. For some calls, tandem switching is undisputedly involved, while for others, only end-office switching is used. The Commission determines that the "tandem blended rate" shall include a rate factor that corresponds to 42% of the sum of the tandem switching and interoffice transport costs. That factored amount shall be added to the end office rate to arrive at the total "tandem blended rate". The Commission encourages a diverse interconnected network as a matter of policy and does not seek to impose or dictate an ILEC's network configuration upon CLECs. Because FCC rules require that the reciprocal compensation rates be based upon an ILEC's forward-looking costs, it is equitable to use the SWBT percentage (42%) as a proxy for the determination of the "tandem blended rate".

With respect to a hierarchical or two-tier switch network, the Commission finds that the actual use of tandem switching facilities is easily discernible. If only an end office switch is

employed to terminate traffic, then only the end office rate shall be applied. If a tandem switch is used for the termination of traffic, then the tandem rate shall apply.

In summary, the Commission adopts the following rate structure as the mechanism for payment of reciprocal compensation:

1. *For traffic terminated by a LEC with two-tier or hierarchical switches, i.e., separate switches performing tandem and end office functions:*
   - *When tandems are used, the originating LECs pay the tandem rate (end office switching + tandem switching + interoffice transport).*
   - *For purposes of the tandem served rate, the end office rate is a bifurcated rate (set-up per call and duration), and the tandem switching and interoffice transport rates are the Mega-Arbitration rates previously adopted by the Commission.*
   - *When tandems are not used, the originating LECs pay the end office rate only.*
2. *For traffic terminated by a LEC that does not have two-tier or hierarchical switches:*
   - *A tandem blended rate (end office switching + % of [tandem switch + interoffice transport]) applies.*
   - *For purposes of this tandem blended rate, the end office rate is a bifurcated rate (set-up per call and duration); the tandem and transport rates are the rates adopted in the Mega-Arbitrations; and the % is an average percentage of tandems used by CLECs on SWBT's network (42%).*
   - *This tandem blended rate applies until a 3:1 ratio (terminating to originating traffic) threshold is reached.*
   - *After the 3:1 ratio threshold is reached, only the end office rate applies, unless the terminating carrier demonstrates actual tandem functionality.*
   - *Upon a demonstration of actual tandem functionality, the terminating carrier will receive the tandem blended rate for all traffic.*
   - *LECs may demonstrate actual tandem functionality either in an arbitration proceeding or other proceeding designated by the Commission.*

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[144] The Commission notes that a carrier without any originating traffic cannot, as a practical matter, qualify for the tandem blended rate and will receive the bifurcated end office rate.

C. DPL ISSUE NO. 3 - WHAT RATES SHOULD APPLY?

All parties agree that the TELRIC principles drive the determination of rates in this docket. TELRIC requires that a cost study employed to set such rates be forward-looking in nature; use an efficient network and engineering framework; and not use embedded costs.[145] Taylor Comm. is the only CLEC in this docket that presented its own cost study. The other parties rely on cost studies previously approved by the Commission.

1. Taylor Comm. Cost Study, Request for Carrier-Specific Rates, and Asymmetric Rates

(a) Taylor Comm.'s Position

Taylor Comm. contends that it should receive higher reciprocal compensation rates than SWBT because its costs to terminate calls are higher. Since its business plan results in a customer base that is disproportionately comprised of ISPs, Taylor Comm. asserts that its cost structure is different from that of SWBT and other companies.[146] Taylor Comm. proposes a minutes of use (MOU) rate structure to recover its compensation from SWBT.[147]

Taylor Comm. notes that most of its costs are volume sensitive, and that it is capable of identifying its incremental costs very efficiently.[148] As proof that its costs are different from those of other carriers, Taylor Comm. submitted a cost study (the QSI study) that initially calculated its cost for call termination as roughly $0.004431 per minute.[149] Taylor Comm. claims that the QSI study is consistent with TELRIC principles. Specifically, Taylor Comm.

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[145] *See* 47 C.F.R. § 51 Subpart F.

[146] Taylor Comm. Ex. No. 4, Rebuttal Testimony of Charles Land at 20.

[147] Tr. at 356 (April 5, 2000). Because the costs to terminate a call are not constant through the duration of a call, this type of recovery mechanism requires an assumption about the average call length. Taylor Comm. has not disclosed how it determined the average call time in its cost study, or even what it is.

[148] Taylor Comm. Ex. No. 4, Rebuttal Testimony of Charles Land at 20.

[149] *See* Taylor Comm. Ex. No. 1-11, Taylor Switching Cost Study.

indicates that no adjustments are needed in the study because the study assumes only efficiently located, state-of-the-art facilities. Further, Taylor Comm. avers that the most recent actual traffic data represent Taylor Comm.'s total company-wide demand for switching.

According to Taylor Comm., the study is designed to capture expenses and outputs as they may be expected to occur on an ongoing basis. Taylor Comm. further explains that the study identifies all necessary facilities for providing switching functions and assigning costs as either traffic sensitive or non-traffic sensitive. In this regard, Taylor Comm. confirms that only the traffic sensitive costs of switches are included in the study.[150] The QSI study uses as inputs: capital switching costs,[151] costs of connections to end-users from Taylor Comm.'s central offices, and trunking costs to reach SWBT switching facilities. The QSI study also assumes the economic life of a switch to be 18 years.[152]

The QSI study links general and administrative costs to MOU based upon the demands on labor for each element. The QSI allocates the overhead costs based on headcount so the expenses follow labor costs, *e.g.*, if a person is assigned to retail related activities, then office and supply related expenses are proportionally assigned to retail activities. Taylor Comm. witness Dr. Ankum states that costs associated with "service to end-users have no place in a study for switching costs."[153] However, when asked about a specific line of costs labeled "end-user T-1s" in the Taylor Comm. cost study, Dr. Ankum states that these connections were usually to Taylor Comm.'s ISP customers, therefore demonstrating that costs associated with service to end-users are included in the QSI study.[154]

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[150] Taylor Comm. Ex. No. 1, Direct Testimony of Dr. August Ankum at 36-40.

[151] All switching equipment in the QSI study is leased from Siemens. *See* Taylor Comm. Ex. No. 1-11, Taylor Switching Cost Study at 8. The lease is for a five-year period. *See* Tr. at 417 (April 5, 2000).

[152] Taylor Comm. Ex. No. 1-11, Taylor Switching Cost Study at 9.

[153] Taylor Comm. Ex. No. 1, Direct Testimony of August H. Ankum at 49.

[154] Tr. at 365-366 (April 5, 2000).

After the initial hearing on the merits, Taylor Comm. amended the QSI study inputs and revised its proposed rate from $0.004431 per minute to $0.002858 per minute, a 35% reduction.[155] In its revised cost study, Taylor Comm. addresses two issues raised in hearing: fill factors and return to capital.[156] Dr. Ankum changed the cost study to conform the Commission-approved rates of return used in the Mega-Arbitrations and modified the trunk utilization factor from 55% to the Commission-approved 75%. Dr. Ankum also increased the annual traffic estimate to 3.2 billion MOU in the revised cost study.[157]

(b) SWBT Position

SWBT believes that the inter-carrier compensation rate should be set symmetrically at the TELRIC of a fully efficient competitor.[158] SWBT declares, therefore, that different assumptions about traffic volumes, depreciation lives, fill factors, or cost of capital should not matter if the forward-looking economic cost of terminating traffic is measured using the parameters of an efficient firm. SWBT warns that there are efficiency consequences of establishing a rate based on costs higher than those of the low-cost provider and states that when high-cost supplier remains in the market, resources are wasted.[159]

SWBT contends that Taylor Comm.'s cost study does not follow TELRIC principles. SWBT states the QSI cost study is a snapshot of Taylor Comm.'s current situation and is not necessarily indicative of future switch capacity and the ability to change capital expenditure.[160]

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[155] Taylor Comm. Ex. No. 5, Supplemental Testimony of Dr. August Ankum at 16; Post-Hearing Brief at 29-31 (April 19, 2000).

[156] Tr. at 320-324, 361-365, and 419-427(April 5, 2000). SWBT also criticized Taylor Comm.'s utilization and its inclusion of return on capital in the QSI study. *See* SWBT Ex. No. 15, Rebuttal Testimony of William Taylor at 5 and 17-18.

[157] Taylor Comm. Ex. No. 5, Supplemental Testimony of Dr. August Ankum at 15.

[158] SWBT Taylor Direct, at 5.

[159] *Id.*

[160] SWBT Ex. No. 15, Rebuttal Testimony of William Taylor at 14-16.

SWBT disagrees with Taylor witness Dr. Ankum's assertion that CLECs experience higher costs due to lower switch utilization levels and lack of scale economies.[161] SWBT states that manufacturers sell small switches and that CLECs can purchase switching capacities according to their demand. SWBT also argues that extra capacities can be added in the form of small a number of lines and, therefore, CLECs should not experience lower switch utilization levels. SWBT submits that lower costs are an important advantage resulting from economies of scale that SWBT should be encouraged to explore. According to SWBT, customers should not have to pay more, directly or indirectly, simply because a small firm has higher costs.[162]

SWBT also argues that Taylor Comm.'s cost study wrongly includes a return on capital for leased switches. SWBT contends that lease payments are expenses, not capital investments. SWBT states that since Taylor Comm. has no capital investments in the leased switches, the opportunity costs and the normal profit from the switches is zero.[163] SWBT concludes that by using the current lease expenses in the QSI model, the cost study becomes one based on embedded costs, rather than forward-looking costs. SWBT contends that the QSI cost study computes switching costs with similar logic. The QSI cost study divides current lease payments by the current number of minutes to arrive at the switching costs per minute. This, by definition, makes the QSI cost study a short-term rather than long-run study, according to SWBT. SWBT maintains that the lease payments also appear to be higher than the capital costs of the same equipment, thus overstating Taylor Comm.'s costs.[164]

Finally, SWBT alleges that the QSI study does not incorporate overhead expenses, including entertainment costs and recycling fees in a proper way.[165]

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[161] *Id.* at 5.

[162] *Id* at 6.

[163] *Id* at 17-18.

[164] *Id* at 13-14.

[165] Tr. at 529-530 (May 18, 2000).